

REPORT

written by Sanna Kauppinen, Johanna Logrén, Jorma Sorvari and Bertalan Galambosi

Herb, berry and fruit production in Finland

Excursion for Russian agricultural teachers and project partners

19th to 22nd of August 2012

This study trip was part of the project called "Special crop education for economic development in North-West Russia and South-East Finland SPECICROP" (2012-14), which is financed by South-East Finland - Russia ENPI CBC 2007-2013 program. Project is coordinated by MTT Mikkeli.

The aims of the study trip:

- **To present the full chain of the special crop production in family sized farm activity in South-East Finland.**
- **To demonstrate the importance of the marketing connection in the special crop production of farms**
- **To demonstrate the practice and the significance of the black plastic growing methods in organic and conventional cultivation in special crop production**

Participants:

Aleksandr Lapshin, Rector, Begunitsy Agrotechnological College

Nadezhda Lapshina, Vice Rector, Begunitsy Agrotechnological College

Olga Kim, Chief accountant, Begunitsy Agrotechnological College

Georgy Kirakosjan, Agronomist, Begunitsy Agrotechnological College

Aleksandr Shikov, Research Scientist, St.Petersburg Institute of Pharmacy

Airat Enikeev, General Director, Rosbio

Alfiya Gabidova, Head of Department, Ministry of Health

Elena Egorceva, Main agriculturist "Rosbio-Agrofarm"

Sergei Nikolaev, Rosbio

Kirill Tkachenko, Botanist, Rosbio

Ivan Meshkov, Director of company Zhenshen

Ravil Haidarov, Agronomist, company Mandrogi

Vesa Vainikainen, Rector, South Savo Vocational College (only in Ollinmäki wine farm)

Riikka Dillström, Project Manager, South Savo Vocational College (only in Ollinmäki wine farm)

Pirjo Huuhtanen, Teacher, South Savo Vocational College

Kirsi Malmstedt, Head of training division, South Savo Vocational College

Bertalan Galambosi, Senior Research Scientist emeritus

Zsuzsanna Galambosi, Research Secretary, MTT Mikkeli (only in Ollinmäki wine farm)

Jorma Sorvari, Director, Eurorahoitus Oy

Johanna Logren, Research Scientist MTT Mikkeli

Sanna Kauppinen, Research Scientist MTT Mikkeli

Sunday 19th of August

Arrival to Mikkeli

Visit to Finnish summer dance place Metsälinna in the evening

<http://www.metsalinna.com/index.html>



Monday 20th of August

9-12

Excursions to Otava school farm of the South Savo Vocational College and MTT Mikkeli Karila experimental station

Otava: Pirjo Huuhtanen and Kirsi Malmstedt introduced the horticultural activities of the vocational college: green house production, nursery, landscaping and floristics. Agricultural teaching activities are plant production and milk production. Cowshed couldn't be visited because of disease quarantine. Otava school farm of the South Savo Vocational College is a partner of the SPECICROP project and it has an important role in rewriting the educational materials on herb cultivation for northern climate.

MTT Mikkeli: Visit in the gene collection of medicinal and aromatic plants. The main interest focused on the collection of *Rhodiola rosea*. Collaboration has been started between MTT Mikkeli and Rosbio, since Rosbio has started to cultivate roseroot by transplanting seedlings obtained from seeds from this collection. During this autumn the collaboration will continue with analyzing the quality of cc. 20 accessions and choosing the best accessions for further propagation. One main question has to be studied: the quality of the roots of this arctic species grown further south in Finland (in Mikkeli) and Russia (in Tula region).



13-13.30 Lunch

14-15 Leading soil, food and water analysis laboratory service in Finland: Viljavuuspalvelu Oy <http://www.viljavuuspalvelu.fi/index.php?mp=true>, Päivi Näkki (044 320 4050)

- We explored the Finnish laboratory service company Viljavuuspalvelu for agriculture.
- This versatile analytic service supports high quality and economical plant production.
- Possibilities to provide samples from Russia were discussed in terms of price level and customs regulations.

15-17 Tour to farm, hotel, restaurant, shop: Tertti Manor <http://www.tertinkartano.fi/eng/> (015) 176 012

- Hostess of the Tertti Manor Pepita Pylkkänen introduced the history of the Manor. During the fourth generation of family Pylkkänen, the manor has changed from the traditional agricultural farm activities to the tourism, connected to agricultural activities. They offer for the visitors (20.000-25.000 per year) pleasant rural circumstances for relaxing and enjoying, like hunting. The main attraction is the decorative vegetable and herb garden, with nearly hundred of plant species. The manor strives to utilize all own raw materials and to turn them into end products, like healthy and tasty restaurant foods, well designed delicious final products. The Tertti manor has been awarded for several times for this creative and pioneer work.

- Our guest Ravil Haidarov is looking for exactly this kind of action for their tourism company in Syväri.



18- Dinner on berry country winery Ollinmäen viinitila <http://www.ollinmaenviinitila.fi/>, Anttola, Sirpa Villanen 0400 657 275

-Ollinmäki winery has 6 berry wines and 1 sparkling wine, 5 liqueurs and 1 cider in their assortment. Main raw materials are red and black currants. Also white currant, raspberry, apple, lingonberry, rhubarb and crowberry are used. All the products are made 100% of Finnish berry and fruit raw material. Yearly production is 35 000 bottles. Most of the production is sold in the farm, but for example stronger alcohol can be sold only through Alko, the shops of Finnish government alcohol monopoly. In addition to wine making, the farm has a restaurant and villas for renting. Winery is open year around.

-There are 27 similar country wineries in Finland. The Finnish alcohol production laws changed in 1995, which gave winery managers an opportunity to start their own production. A value-adding and equal classification system for Finnish country fruit winery products was taken into use in 2005. The system will guarantee that the products are sensory evaluated and of high quality.



Tuesday 21st of August

8.30 Departure from the hotel

- 9-11 Cultivation and products of herbs: Heikkilän Yrttitila Oy <http://www.kotimaisyrttit.fi/>, Terhi and Jussi Saarinen (050 520 3705), Huhtisaarentie 3a, 51720 Rahula, Mikkeli
- The farm used to be a dairy farm but was turned into herb production company 5 years ago. The farm has 17 ha of fields 4 hectares of which is for herbs. Now they have 10-15 herb species, all cultivated in black plastic beds. Nearly all phases of the production are mechanised (plastic laying, grass mower between beds, harvest, drying, post harvest processing). During summers, besides the family they employ two workers for field works.
 - Jussi Saarinen lectured about the Finnish quality control system which is based on self- control of companies including applying the *HACCP system* and official, rarely made quality controls.
 - Jussi Saarinen told that Heikkilän Yrttitila has several certificates for their products. Marketing is one of the main important key in the success. The products are well and nicely designed, using funny names based on their four children's first names. Their products are distributed through 70 retailers, via internet, and they also have small-scale local shop in their own farm. This year their production was 700 kg dried herbs.
 - Drying of herbs happens by warm air through wire grid where herbs are laying. Warm air is produced by burning wood pellets



- 11-13 Cultivation of strawberries, raspberries and fruits: Piispan marjatila <http://www.piispanmarjatjahedelmat.com/>, Matti Piispa, (040 508 7816), Särkimäentie 27, 51720 Rahula, Mikkeli
- Matti Piispa introduced the fruit and berry farm. He cultivates apples, plums, strawberries and raspberries in 7 hectares. All plantations have irrigation in drip hoses and black plastic is used for every plant.
 - Main varieties of raspberry are Canadian Muskoka and Ottawa. Special variety is Scottish Glen Ample, which can have berries double size to other varieties. These varieties are florican varieties. Primocane varieties have hard time to produce good yield in Finland, but Matti has Polka primocane raspberry in his warmest field corner. It makes good profit during warm summer when main raspberry season is over. Raspberries are picked every other day. Price for the farmer was about 8 euros/kg in this year. Matti Piispa lectured about importance of good supporting of the shoots, which is helping a lot in the hand picking. Young shoots are kept separately from the shoots with berries. This is called V-support.
 - Strawberry varieties are early Honeoye and mid-term Polka and Salsa and late Rumba. Price of strawberry varies from 3,5 to 10 euros/ kg depending on the time of the season and the type of the customer.
 - Plum varieties haven't survived winters very well. During the SPECICROP project our aim is to find more winter hardy varieties among Russian collections.
 - Matti Piispa introduced the machinery which is used on the farm. Fruit and berry cultivation doesn't need much machinery.



13-14.30 Lunch at Siiskosen Leipomo (015 4100 425)

15-16.30 Potted herb production in greenhouse: Turakkalan Puutarha Oy <http://www.jarvikyla.fi/> Juho Laamanen (050 370 1557), Tuulikki Laamanen (050 370 1556), Vanha Juvantie 543, 51810 Maivala, Juva

-During last 20 years the fresh cut herbs have got a great popularity among Finnish consumers. The long winter season has pressed the producers to use hydroponic techniques, which offer all-year-round availability of fresh salads and herbs. The greenhouse company represent a highly specialised family company. During the visit we saw all technological phases of the pot-herb production. This greenhouse unit is cooperating with the bigger fresh-cut –herb producer, Famifarm Oy, Joroinen, and in this unit they produce the more specific herb species, which are difficult to produce in the automatic lines. The greenhouse has a modern biogas energy system.

17-18 Wehmaan kartano, a big organic milk farm with tourism business: Clothing store Butiken på Landet <http://www.butikenpawehmais.fi/> and TeaHouse of Wehmais <http://www.teahouse.fi/>, Juva

-Nils Grotenfeld lectured about Vehmaa organic milk farm. The farm has 300 ha field and 1000 ha forest and approximately 60 dairy cows. He told about cooperation of farmers in the area, for example dairy owned by a group of farmers. The farm is a very modern agricultural industry. Tourism services like fashion garment shop and tea house are connected to agricultural activities in the farm and their turnover is as much as the turnover from farming. Customers are mainly no-local people but wealthy people who stop by on their way to summer cottage or Opera Festival. This is conscious choice of the customers, as this is the segment of customers they want to have as their clients.



Dinner at Sanna's farm, Juva



Wednesday 22nd of August

8:30-10:30 Echinaceae production on Arpola farm, Puumala. Farmers Pirjo and Erkki Pulliainen and Export Director Matti Kaarlas from Hankintatukku Oy.

The Arpola Herb Farm is specialized for organic cultivation of Echinacea and Rhodiola species for a pharmaceutical company, Hankintatukku Oy. They have about 20 year-long cultivation contract. All herbs are grown in plastic mulched beds fertilized organically, with composted chicken manure (Biolan). 12 years ago the Good Agricultural Practice methods were elaborated for the Echinacea production and the production is under continuous control of the pharmaceutical factory. The whole Echinacea plant (flowers, stems and roots) is harvested, cleaned, washed, sliced and packed into 15 kg boxes and transported every hour (!) to the freezer store, situated 6 km from the farm. The quantity of the harvested raw material is determined by the marketing situation. The frozen (-20° C) stored raw material is transported to the factory at Karkkila, situated 300 km south-west.



12-13 Lunch at Restaurant Heila in Heinola, that uses local raw material for meals.

15-16.30 Pharmaceutical factory: Hankintatukku Oy <http://www.hankintatukku.com/> , Pekka Salovaara, Lehtolankatu 18, 03600 Karkkila, (020 112 1252)
 Pekka Salovaara, director of the factory introduced us the activity of the company and the quality insurance pharmacist, Maareta Ahola presented the control system of the production. The company has about 300 products, of which 70 % is marketed in Finland and 30 % is exported to more than 35 countries. Turnover is 16,5 mill. euros. They have 70 workers. The factory has the Good Manufacture Practice system, which is connected to the Good Agricultural Practice system of raw material production. Their products include pills, creams and liquids like extracts. Their special products are xylitol, mushroom, lecithin and fatty acid based products.

Back to home (Karkkila- Vaalimaa/Nuijamaa about 3 hours by car or 1 hour to Tikkurila railway station)

